	Dynkin diagrams	Lie algebras	Lines	Polytope	
k= 0		A0 = U(1) = Spin(2)	0	0	U(1) of CP2 = SU(3) / SU(2) x U(1)
k=1	0	A1 = SU(2) = Spin(3)	1	line segment	SU(2) of CP2 = SU(3) / SU(2) x U(1)
k= 2	0—0	A2 = SU(3)	3	triangle	SU(3) of CP2 = SU(3) / SU(2) x U(1)
				SU(4) contains SM SU(3)	

k=3

O A3 =
$$SU(4)$$
 = $SU(2,2)$ = D3 = $Spin(6)$ = $Spin(2,4)$

6 cuboctahedron diagonals
SU(2,2) = Spin(2,4) of Conformal Gravity + Dark Energy





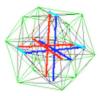
k=4



6 = cuboctahedron diagonals = SM SU(3) and CP2 or Conformal Gravity

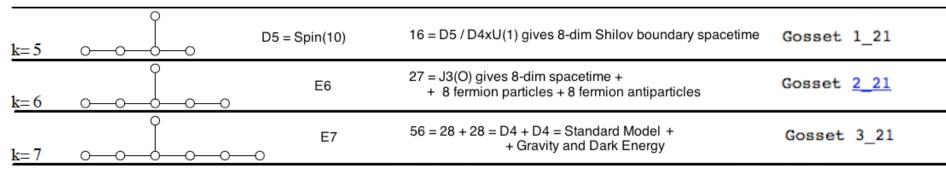
$$D4 = Spin(8)$$

10 6+4 special lines of 24-cell





4 = 3 + 1 where 3 = octahedron diagonals = space and 1 = octahedron displacement = time



240 E8 / 112 D8 = 64+64 for 8 spinor fermion particles+antiparticles 112 D8 / 24 D4 x 24 D4 = 64 for 8-dim Kaluza-Klein spacetime

E8 240 Witting = Gosset 4_21

24 D4 contains 8-dim SM SU(3) of CP2 = SU(3) / SU(2)XU(1) 24 D4 contains 15-dim Conformal SU(2,2) = Spin(2,4)

